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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,836	03/31/2004	Yuh-Cherng Wu	13906-157001/2003P00945 U	6482

32864 7590 11/27/2006

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EXAMINER	
CONTINO, PAUL F	

ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,836	WU ET AL.	
	Examiner	Art Unit	
	Paul Contino	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-26* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION: Non-Final Rejection

Specification

1. The abstract of the disclosure is objected to because of the unnecessary inclusion of the "60178743.doc" text. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 23-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 23-26 are not limited to tangible embodiments. In view of Applicant's disclosure, Specification page 34 lines 5-7, the system is not limited to tangible embodiments, instead being defined as including both nonspecific tangible embodiments (e.g. machine-readable storage device) and intangible embodiments (e.g. propagated signal). As such, the claims are not limited to statutory subject matter and are therefor non-statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "less significant" in claim 10 is a relative term which renders the claim indefinite. The term "less significant" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Kimura et al. (U.S. Patent No. 5,111,383).

As in claim 1, Kimura et al. discloses a method of executing a diagnosis program including multiple procedures associated with remedy procedures wherein the diagnosis program does not specify an order in which the remedy procedures are executed, the method comprising:

receiving, in a computer system wherein a plurality of automated diagnostic procedures is performed *(column 5 lines 55-57 and column 6 lines 22-23, where the sensors are interpreted as carrying out diagnostics)*, priority information specifying an order in which failures of any of the plurality of automated diagnostic procedures are to be addressed *(column 6 lines 64-67)*;

performing the plurality of automated diagnostic procedures *(column 6 lines 64-67)*; and

upon at least some of the automated diagnostic procedures failing, performing a plurality of automated remedy procedures in the specified order, the automated remedy procedures being associated with the failed automated diagnostic procedures *(column 6 lines 65-67)*.

As in claim 2, Kimura et al. discloses initially displaying a first identifier for a failed automated diagnostic procedure that is to be addressed first, the first identifier being displayed for a user to initiate an automated remedy procedure associated with the failed automated diagnostic procedure *(column 5 lines 41-43 and column 11 lines 18-27, where the alarm lamps are interpreted as identifiers)*.

As in claim 4, Kimura et al. discloses a failure of at least one of the automated remedy procedures comprises one selected from the group consisting of: an informational message, an advisory, a warning, a fatal error notification, and combinations thereof *(column 5 lines 42-43, where the alarm lamps are interpreted as an advisory or a warning)*.

As in claim 23, Kimura et al. discloses a computer program product tangibly embodied in an information carrier, the computer program product including instructions that, when executed, cause a processor to perform operations comprising:

receive, in a computer system wherein a plurality of automated diagnostic procedures is performed *(column 5 lines 55-57 and column 6 lines 22-23, where the sensors are interpreted as carrying out diagnostics)*, priority information specifying an order in which failures of any of the plurality of automated diagnostic procedures are to be addressed *(column 6 lines 64-67)*;

perform the plurality of automated diagnostic procedures *(column 6 lines 64-67)*; and

upon at least some of the automated diagnostic procedures failing, perform a plurality of automated remedy procedures in the specified order, the automated remedy procedures being associated with the failed automated diagnostic procedures *(column 6 lines 64-67)*.

* * *

5. Claims 1, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by IBM (NNRD449113 - *IBM Technical Disclosure Bulletin: Priority Based System Test Method*).

As in claim 1, IBM discloses a method of executing a diagnosis program including multiple procedures associated with remedy procedures wherein the diagnosis program does not specify an order in which the remedy procedures are executed, the method comprising:

receiving, in a computer system wherein a plurality of automated diagnostic procedures is performed *(paragraphs 1-5, test cases)*, priority information specifying an order in which failures of any of the plurality of automated diagnostic procedures are to be addressed *(paragraphs 6-10, where the dependent test cases to be re-executed are interpreted as being in an order to be addressed; it is interpreted that a dependency matrix is inherently created by a human user and received by the test case computer system)*;

performing the plurality of automated diagnostic procedures *(paragraphs 1-5, test case execution)*; and

upon at least some of the automated diagnostic procedures failing, performing a plurality of automated remedy procedures in the specified order, the automated remedy procedures being associated with the failed automated diagnostic procedures *(paragraphs 6-12, where weighting and dependency are interpreted as factors in specifying an order)*.

As in claim 7, IBM discloses updating the priority information upon at least some of the automated diagnostic procedures failing *(where a ToBeTested status for the re-execution of dependent cells is interpreted as updating of priority information)*.

As in claim 8, IBM discloses updating the priority information also if any of the automated remedy procedure causes any other of the plurality of automated diagnostic procedures to fail *(where a ToBeTested status for the re-execution of dependent cells is interpreted as updating of priority information)*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-5, 7, 11, and 13-26 are rejected under 35 U.S.C. 103(a) as being anticipated by Mayuzumi et al. (U.S. Patent No. 6,134,644) in view of Kimura et al.

As in claim 1, Mayuzumi et al. teaches of a method of executing a diagnosis program including multiple procedures associated with remedy procedures wherein the diagnosis program does not specify an order in which the remedy procedures are executed, the method comprising:

receiving, in a computer system wherein a plurality of automated diagnostic procedures is performed *(column 19 lines 28-35, where the sensors are interpreted as being part of diagnostic procedures)*, priority information specifying an order in which failures of any of the plurality of automated diagnostic procedures are to be addressed *(column 15 lines 39-43 and column 16 lines 37-40)*;

performing the plurality of automated diagnostic procedures *(column 15 lines 20-27, where the sensor measurements are interpreted as diagnostic procedures)*; and

upon at least some of the automated diagnostic procedures failing, performing a plurality of remedy procedures in the specified order, the remedy procedures being associated with the failed automated diagnostic procedures *(Figs. 10 and 15; columns 22 and 23)*.

However, Mayuzumi et al. fails to teach of automated remedy procedures. Kimura et al. teaches of automated remedy procedures *(column 3 lines 55-59, column 6 lines 63-68, and column 7 lines 5-15 and 34-46)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the automated remedy procedures as taught by Kimura et al. in the invention of Mayuzumi et al. This would have been obvious because automation of recovery of a system such as that taught by Kimura et al. enhances the overall efficiency of a sequential system *(column 2 lines 10-21)* such as that taught by Mayuzumi et al.

As in claim 2, Mayuzumi et al. teaches of initially displaying a first identifier for a failed automated diagnostic procedure that is to be addressed first, the first identifier being displayed for a user to initiate an automated remedy procedure associated with the failed automated diagnostic procedure *(Figs. 8, 10, and 15; columns 16-25)*.

As in claim 3, Mayuzumi et al. teaches of displaying a second identifier following performance of the automated remedy procedure, the second identifier being associated with another failed automated diagnostic procedure *(Figs. 8 and 15; columns 20-25, where the hierarchical displays of errors and remedies are interpreted as identifiers)*.

As in claim 4, Mayuzumi et al. teaches of a failure of at least one of the automated remedy procedures comprises one selected from the group consisting of: an informational message, an advisory, a warning, a fatal error notification, and combinations thereof *(Figs. 8, 10, and 15)*.

As in claim 5, Mayuzumi et al. teaches of a matrix with dependency values for the plurality of automated diagnostic procedures *(column 17-19, where the database 43 is interpreted as a matrix with dependency values corresponding to the ordering of a procedural sequence)*.

As in claim 7, Mayuzumi et al. teaches of updating the priority information upon at least some of the automated diagnostic procedures failing *(column 16 lines 37-46)*.

As in claim 11, Mayuzumi et al. teaches of a user entering the priority information in the computer system *(Figs. 8 and 10; column 16 lines 3-60, where the priority information is being inputted by an operator)*.

As in claim 13, Mayuzumi et al. teaches the priority information is received from a publisher according to a subscription *(Figs. 8 and 10; columns 16 and 17, where the publisher is interpreted as the CRT 42A and the subscription is interpreted as the relationship between the CRT 42A, the information storing unit 45, the control unit 44, and the operator; another interpretation is as follows: column 19 lines 4-20, where the control unit is interpreted as a*

publisher and the relationship with the database storing priority information is interpreted as a subscription).

As in claim 14, Mayuzumi et al. teaches the priority information is updated, further comprising publishing the updated priority information *(Figs. 8 and 10; where the transition from CRT 42A in Figure 8 to Figure 10 depicts a publishing of an update of priority information).*

As in claim 15, Mayuzumi et al. teaches of generating the priority information using a dependency model for the automated diagnostic procedures *(columns 17-19, where the database 43 is interpreted as a dependency model).*

As in claim 16, Mayuzumi et al. teaches the dependency model associates at least two problems with the observed data and wherein the plurality of automated diagnostic procedures includes two automated diagnostic procedures designed to identify the two problems, and wherein the method further comprises deciding a relative order of the two automated diagnostic procedures using the dependency model *(columns 17-19, where a multitude of problems is depicted in Table 1, which have been inherently diagnosed and identified, and where a relative order of the errors is decided upon when referencing the database containing dependency information, interpreted as a dependency model).*

As in claim 17, Mayuzumi et al. teaches of generating a policy using the dependency model and using the policy in generating the priority information *(column 19 lines 4-14, where the policy is interpreted as the relationship between part codes and errors)*.

As in claim 18, Mayuzumi et al. teaches the policy specifies how to perform at least two of the automated remedy procedures upon observing certain data *(Figs. 8, 10, and 15; columns 17-25, where the description to the user of how to remedy an error, and the ordering of execution of remedy procedures, is interpreted as the policy specification of how to perform the remedy procedures)*.

As in claim 19, Mayuzumi et al. teaches the plurality of automated diagnostic procedures includes a first user-developed automated diagnostic procedure and a plurality of preconfigured automated diagnostic procedures, the preconfigured automated diagnostic procedures being part of a program that is configured to accept user-developed automated diagnostic procedures *(Figs. 8 and 10; columns 16-18, where the inputted error event correlations are interpreted as user-developed diagnostic procedures, and the program that enables inputting and display of the user-developed diagnostic procedures are interpreted as preconfigured automatic diagnostic procedures)*.

As in claim 20, Mayuzumi et al. teaches the user-developed automated diagnostic procedure is a Business Add-In component *(Figs. 8 and 10; columns 16-18, where the correlated*

operator inputs are interpreted as Business Add-In components; see Fig. 15 A0 "Business Screen" and column 18 lines 15-28).

As in claim 21, Mayuzumi et al. teaches of receiving user input modifying the priority information *(Fig. 15; column 20 line 61 through column 21 line 12, where operator input modifies priority information display and execution).*

As in claim 22, Mayuzumi et al. teaches the input does at least one selected from the group consisting of: specifies a correlation probability between two of the automated diagnostic procedures, selects a correlation probability between two of the automated diagnostic procedures not to be updated, modifies the specified order, and combinations thereof *(Fig. 15; column 20 line 61 through column 21 line 12, where operator input modifies the specified order depending on the level of the operator).*

As in claim 23, Mayuzumi et al. teaches of a computer program product tangibly embodied in an information carrier, the computer program product including instructions that, when executed, cause a processor to perform operations comprising: receive, in a computer system wherein a plurality of automated diagnostic procedures is performed, priority information specifying an order in which failures of any of the plurality of automated diagnostic procedures are to be addressed:

receiving, in a computer system wherein a plurality of automated diagnostic procedures is performed *(column 19 lines 28-35, where the sensors are interpreted as being part of diagnostic*

procedures), priority information specifying an order in which failures of any of the plurality of automated diagnostic procedures are to be addressed *(column 15 lines 39-43 and column 16 lines 37-40)*;

performing the plurality of automated diagnostic procedures *(column 15 lines 20-27, where the sensor measurements are interpreted as diagnostic procedures)*; and

upon at least some of the automated diagnostic procedures failing, performing a plurality of remedy procedures in the specified order, the remedy procedures being associated with the failed automated diagnostic procedures *(Figs. 10 and 15; columns 22 and 23)*.

However, Mayuzumi et al. fails to teach of automated remedy procedures. Kimura et al. teaches of automated remedy procedures *(column 3 lines 55-59, column 6 lines 63-68, and column 7 lines 5-15 and 34-46)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the automated remedy procedures as taught by Kimura et al. in the invention of Mayuzumi et al. This would have been obvious because automation of recovery of a system such as that taught by Kimura et al. enhances the overall efficiency of a sequential system *(column 2 lines 10-21)* such as that taught by Mayuzumi et al.

As in claim 24, Mayuzumi et al. teaches of a computer program product tangibly embodied in an information carrier, the computer program product including instructions that, when executed, generate on a display device a graphical user interface for a diagnosis program *(Figs. 8 and 10)*, the graphical user interface comprising:

an identifier display area for displaying, upon a plurality of automated diagnostic procedures being performed in a computer system *(column 19 lines 28-35, where the sensors are interpreted as being part of diagnostic procedures)*, a first identifier of at least one failed automated diagnostic procedure such that a user can initiate a remedy procedure associated therewith *(Figs. 8, 10, and 15; columns 16-25)*, the failed automated diagnostic procedure being selected using priority information specifying an order in which failures of any of the automated diagnostic procedures are to be addressed *(Figs. 10 and 15; columns 22 and 23)*.

However, Mayuzumi et al. fails to teach of automated remedy procedures. Kimura et al. teaches of automated remedy procedures *(column 3 lines 55-59, column 6 lines 63-68, and column 7 lines 5-15 and 34-46)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the automated remedy procedures as taught by Kimura et al. in the invention of Mayuzumi et al. This would have been obvious because automation of recovery of a system such as that taught by Kimura et al. enhances the overall efficiency of a sequential system *(column 2 lines 10-21)* such as that taught by Mayuzumi et al.

As in claim 25, Mayuzumi et al. teaches of a second identifier of at least one other failed automated diagnostic procedure is displayed in the identifier display area upon performance of the automated diagnostic procedure *(Figs. 8 and 15; columns 20-25, where the hierarchical displays of errors and remedies are interpreted as identifiers)*.

As in claim 26, Mayuzumi et al. teaches the identifier display area is a critical error view area, and wherein the first identifier is displayed because the failed automated diagnostic procedure is most critical according to the priority information *(Figs. 8, 10, and 15; column 17, especially Table 1)*.

* * *

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over IBM in view of Mayer et al. (U.S. Patent No. 6,195,763).

As in claim 9, IBM teaches the limitations of claim 7. However, IBM fails to teach of a problem causing other procedures to fail. Mayer et al. teaches of a problem that causes other procedures to fail *(columns 2 and 4)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the failure dependency as taught by Mayer et al. in the invention of IBM. This would have been obvious because the invention of Mayer et al. offers an efficient solution to determining the root of a fault *(column 2 lines 51-55)*. The invention of Mayer et al. teaches that a first procedure which has a dependence on a second procedure, such as that taught by IBM, may fail if the procedures have a mutual dependence.

* * *

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over IBM in view of Perez et al. (U.S. PGPub 2002/0116666).

As in claim 11, IBM teaches of the limitations of claim 7. However, IBM fails to teach of a user entering priority information. Perez et al. teaches of inputting priority information by a user *(paragraph [0024], where the editing of a test sequence is interpreted as inputting of priority information)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the user specification as taught by Perez et al. in the invention of IBM. This would have been obvious because the invention of Perez et al. reduces the overall size of a testing environment, minimizes the amount of testing time, and increases the fault tolerance of a system *(paragraphs [0019] and [0030])*.

As in claim 12, Perez et al. teaches the user specifies that a relationship between addressing the failures of at least two of the plurality of automated diagnostic procedures is not to be changed in any updates *(paragraphs [0027], [0080], and [0083], where the locking is interpreted as preventing a change in a relationship between procedures; the relationship is interpreted as the synchronization between the base and child test sequences)*.

Allowable Subject Matter

9. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 6 is allowable because the inclusion of a correlation probability between diagnostic procedures to decide a relative order of addressing failures, where the correlation probability is at least a threshold value, when read within the remainder of the limitations of the respective claims, make claim 6 allowable over the prior art.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 5,592,614 Peters discloses inputting of priority information.

U.S. Patent 6,834,363 Austen et al. discloses prioritization of errors.

U.S. Patent 5,590,036 Maeda discloses sequential fault recovery.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PFC
11/22/2006

SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER